

No 17



1816

Inaugural Dissertation
On.
CHOLERA INFANTUM.

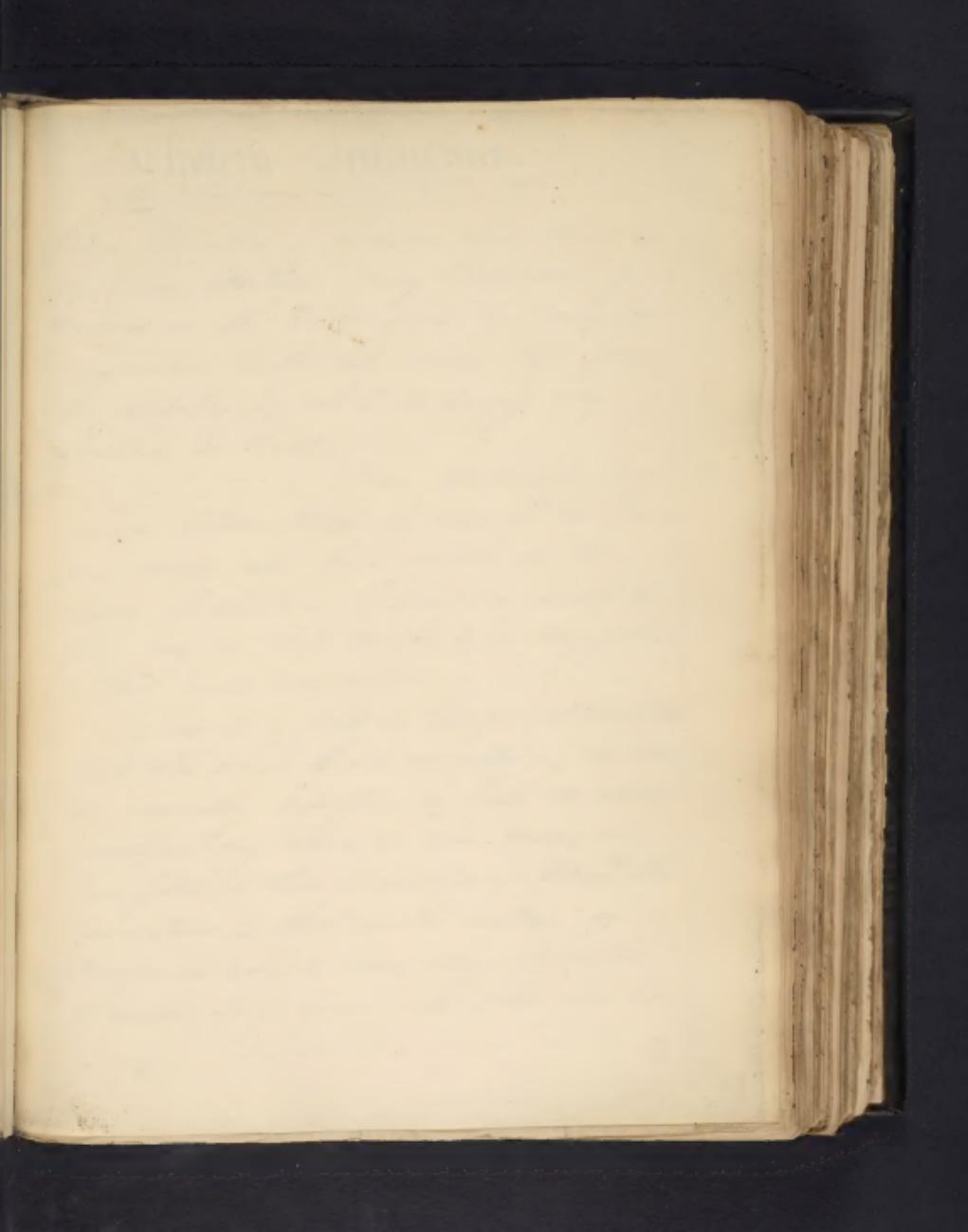
Submitted to the Examination of the
The Revd. Frederick Dr. Bradley D.D. President
The Trustees & Medical Faculty of the
University of Pennsylvania.

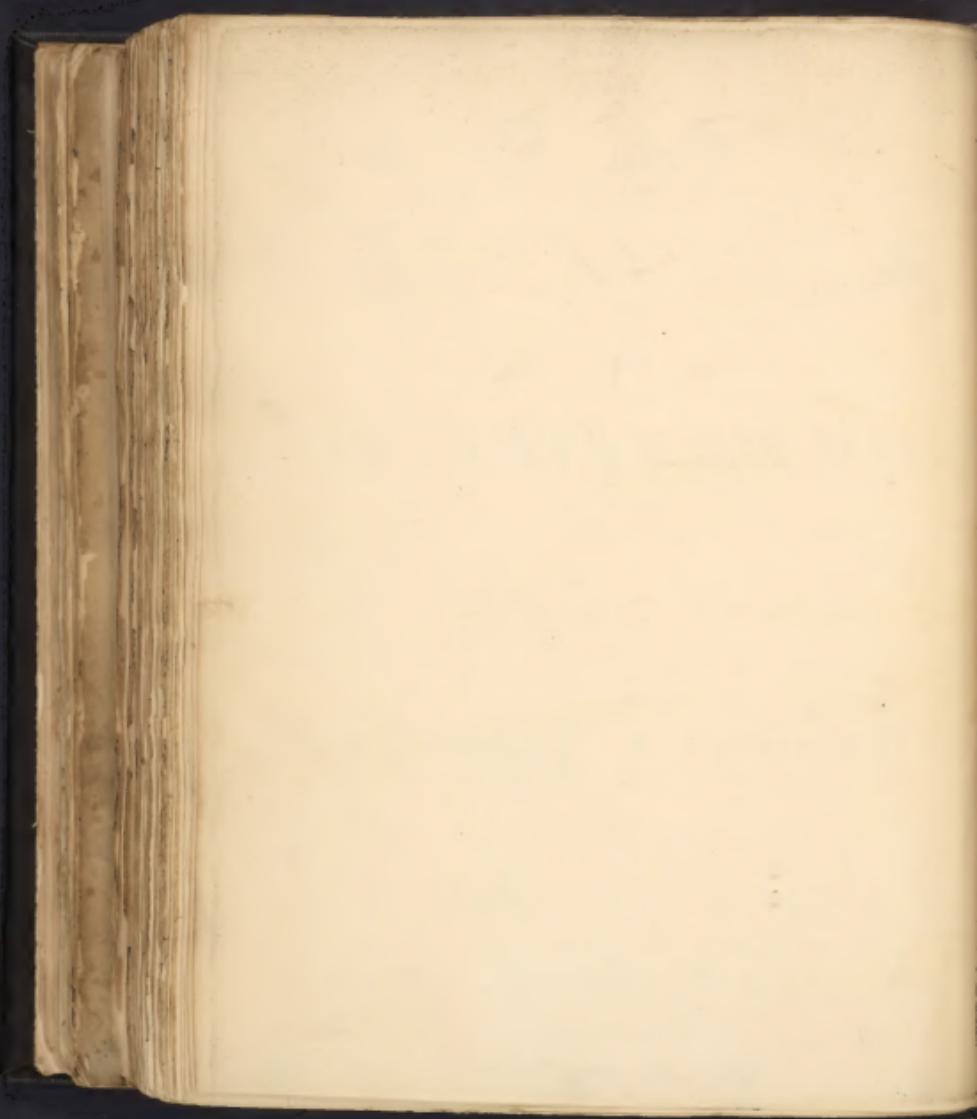
For the Degree of Doctor of Medicine
On the 27th. day of October 1821.

By James M. Crane of Pennsylvania
Member of the Philadelphia Medical Society
Published March 27th. 1823

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Cholera Infantum.

Cholera Infantum is a disease that demands the serious attention of every Practitioner of Medicine in the United States, not only from its prevalence in the hot seasons, but from the Mortality by which its progress may sometimes be traced.

From the cursory view which I have taken of some of the European writers who have written on the disease of children, I have been unable to find any one that corresponds in every feature to that under consideration.

True it is that in Europe (at least the part with which I was acquainted) Children are frequently distract'd by bowel complaints, sometimes very tedious in their course, now even fatal in their termination. From the circumstance that in the countries of Europe as well as here, very old maten & indeed very young one who has been

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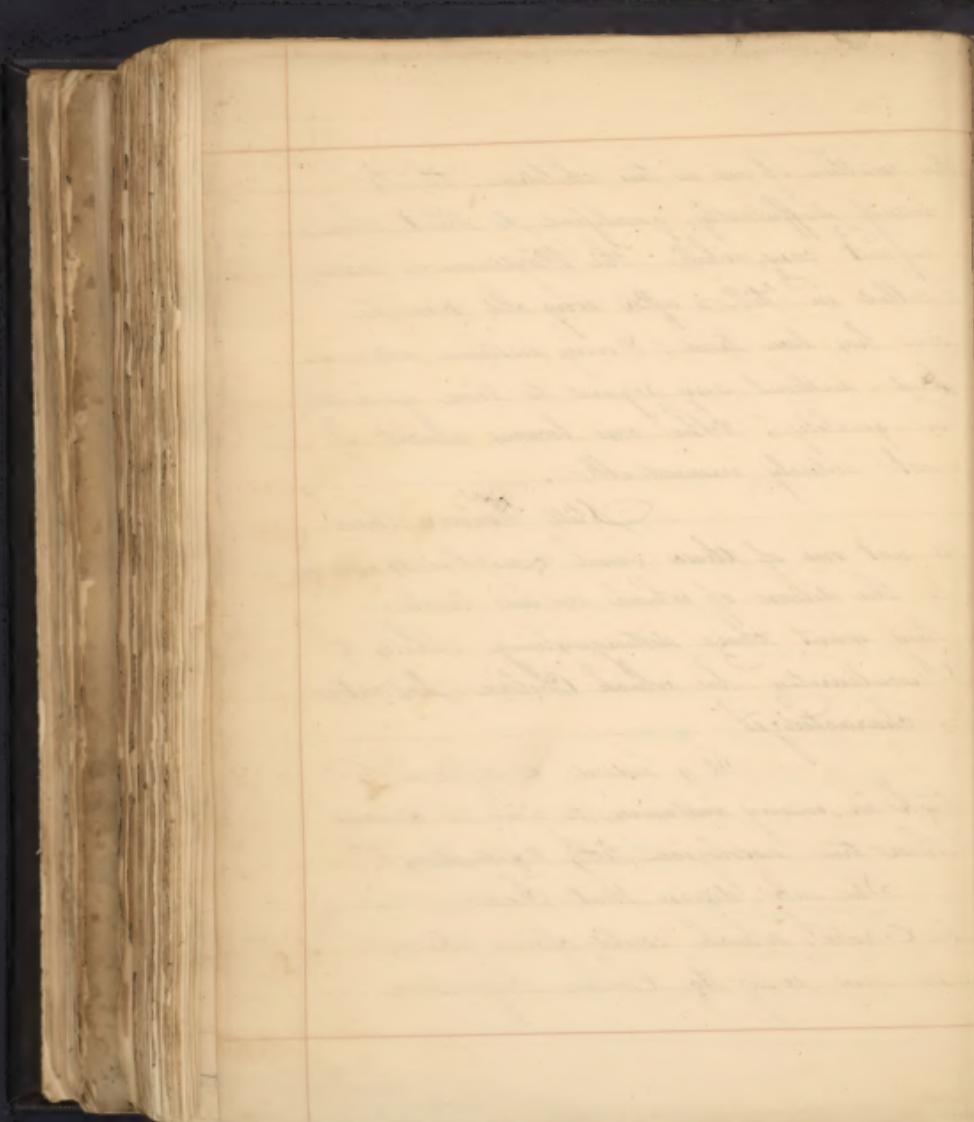
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the mother of one or two children, think
herself sufficiently qualified to treat those
infant cases, while the Physician is now
called in till after every old woman's
cure has been tried, & every nostrum adminis-
tered, without any regard to time, quantity
& quality; & the case become almost if
not entirely irremediable.

Still however there
is not one of those local complaints similar
to the disease of which we are treating.
They want those distinguishing marks &
peculiarities, by which Cholera Infantum
is characterized.

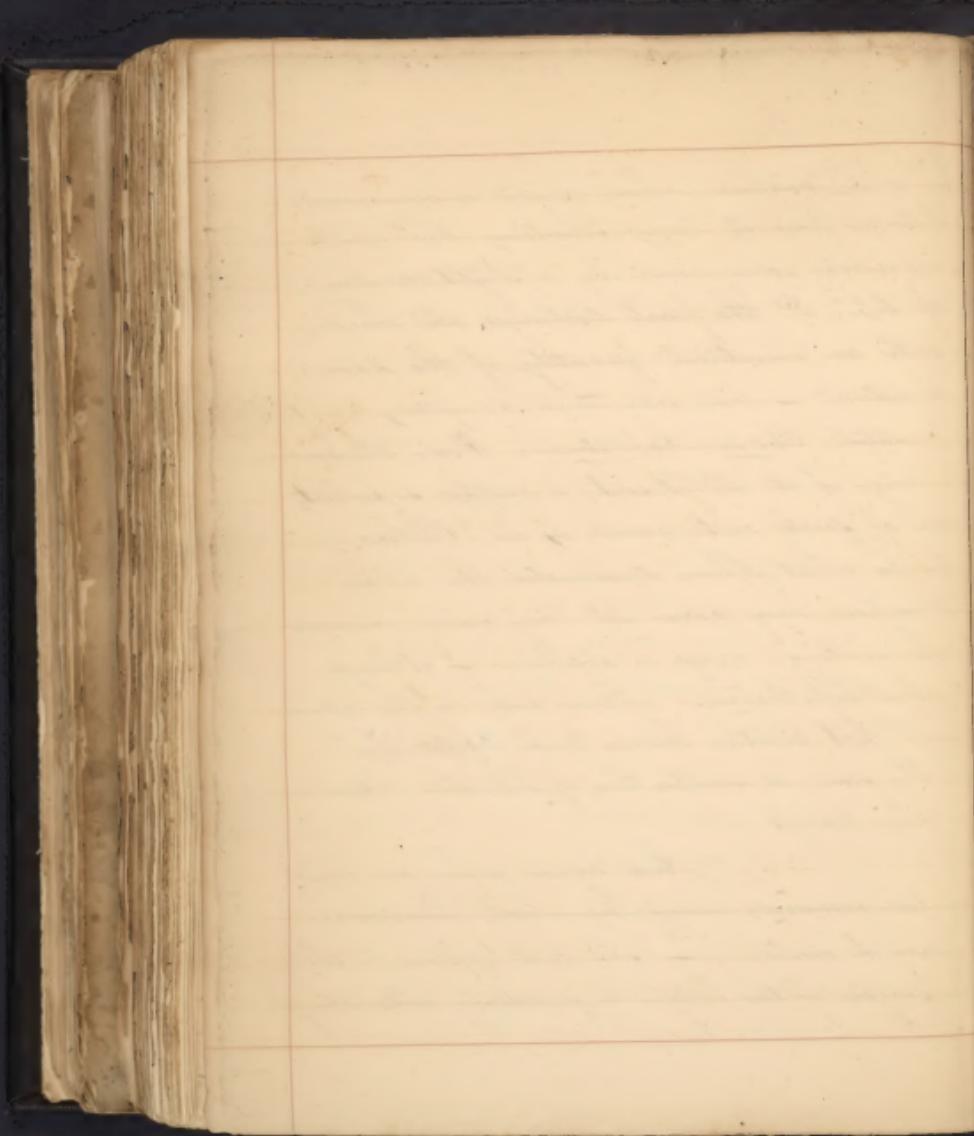
It is indeed a difficult
task in many instances, to give to diseases
that true nosological title & situation.

The only disease that I can recall
in Europe, which could claim alliance
in any way to Cholera Infantum



is a Diarrhae which might be denominated
bilious: from its being sometimes tho' not
invariably accompanied by a slight vomiting
of bile, & the faecal discharge also mixed
with an unnatural quantity of the same
secretion - but even these symptoms do not
constitute Cholera Infantum. For, the vom-
iting if at all present, is neither so violent
nor of such continuance as in Cholera: -
but by what I have denominated the bilious
Diarrhae, may occur at any season whenever
the exciting cause is applied - Whereby
the Chol. Infant. appears only in the extreme-
ly hot weather between June & September.
Very few as another line of distinction Stevens
thinks disease

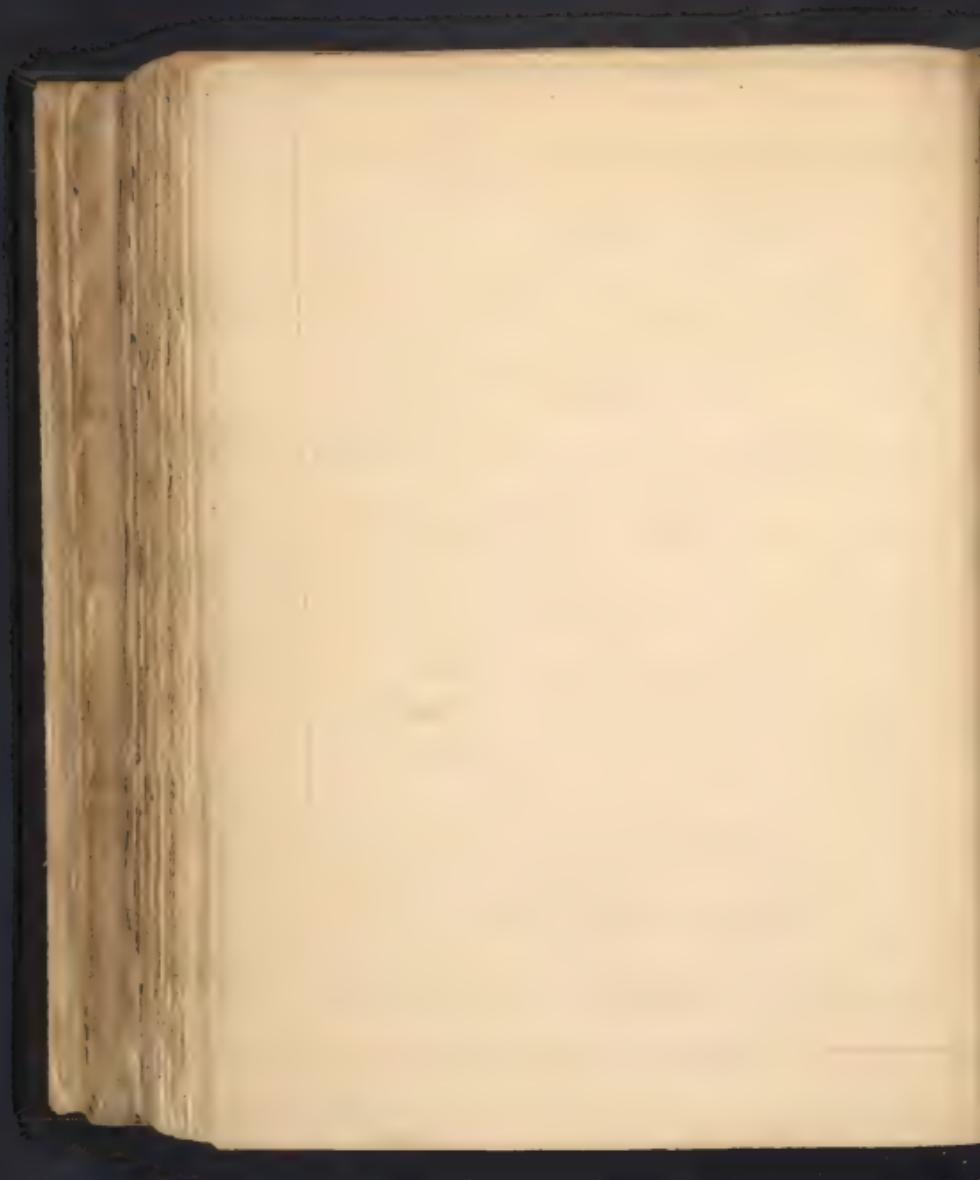
And again when we consider
the numerous ways by which Diarrhae
may be caused, - As cold applied to the
surface of the body, or suddenly alternating



with heat - This is as you will
see in another country - In which
the first 1000 ft. of heat
occur nearly of itself & since they
that it is August the former morning
& there can be added to my existing
feeling starting one in a regular ab.
at. addition I will add some remarks
to demonstrate Peculiar Relation.

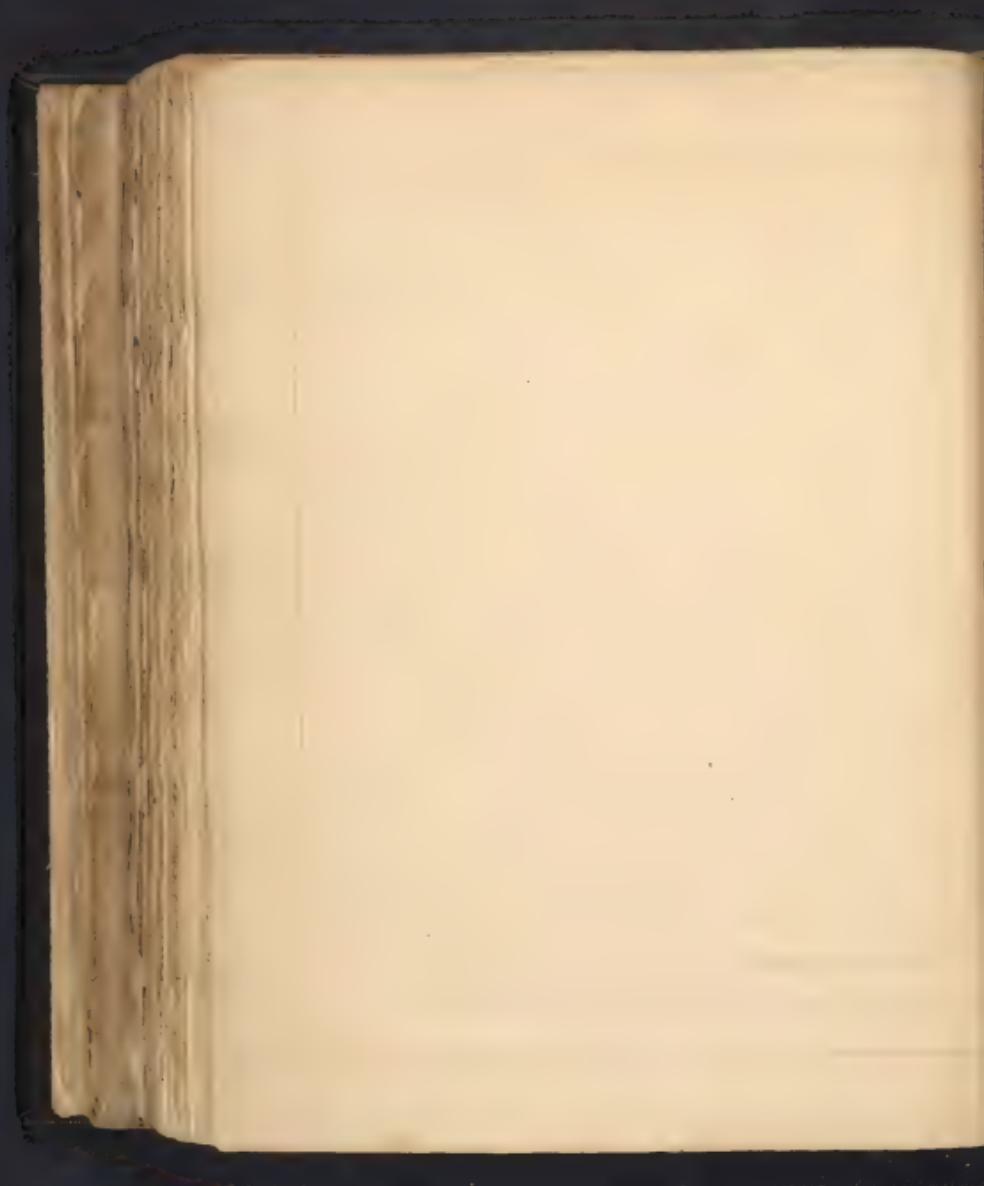
Now, here's a fine sense of division - &
works in a double way as to health -
first after the day of Delirium has
terminated he will still have that except
the first part of the intestinal tract remains
it is in fact - by a diarrhea -
over-generous motions - as we do
of broken water cases, leaving the patient &
him to his own sufferings.

But the reason is that not one of the
many causes of Diarrhea which we have



intended, " many more would succeed
(necessary) to produce such effects
as will render some or most malignant,
however they may tend, as they most undoubt-
edly do, to abate the disease.

But does desultory or noisy
which have been accused as the most
prominent symptoms, ever cure the disease?
I would say not - For, although as
frequently happening in Winter or Spring
as in Summer or Fall ~~the latter~~ ^{the former} do not
not follow at close seasons; the the
infection seems to be great & noisy we
not the cause, for none have been known
in cases that have terminated - ~~to attain~~
not other symptoms of derangement have
been found in the body. The Malacaria
however have been found very moment
of entry-susceptible. The invagination of the
stomach have been frequently discovered

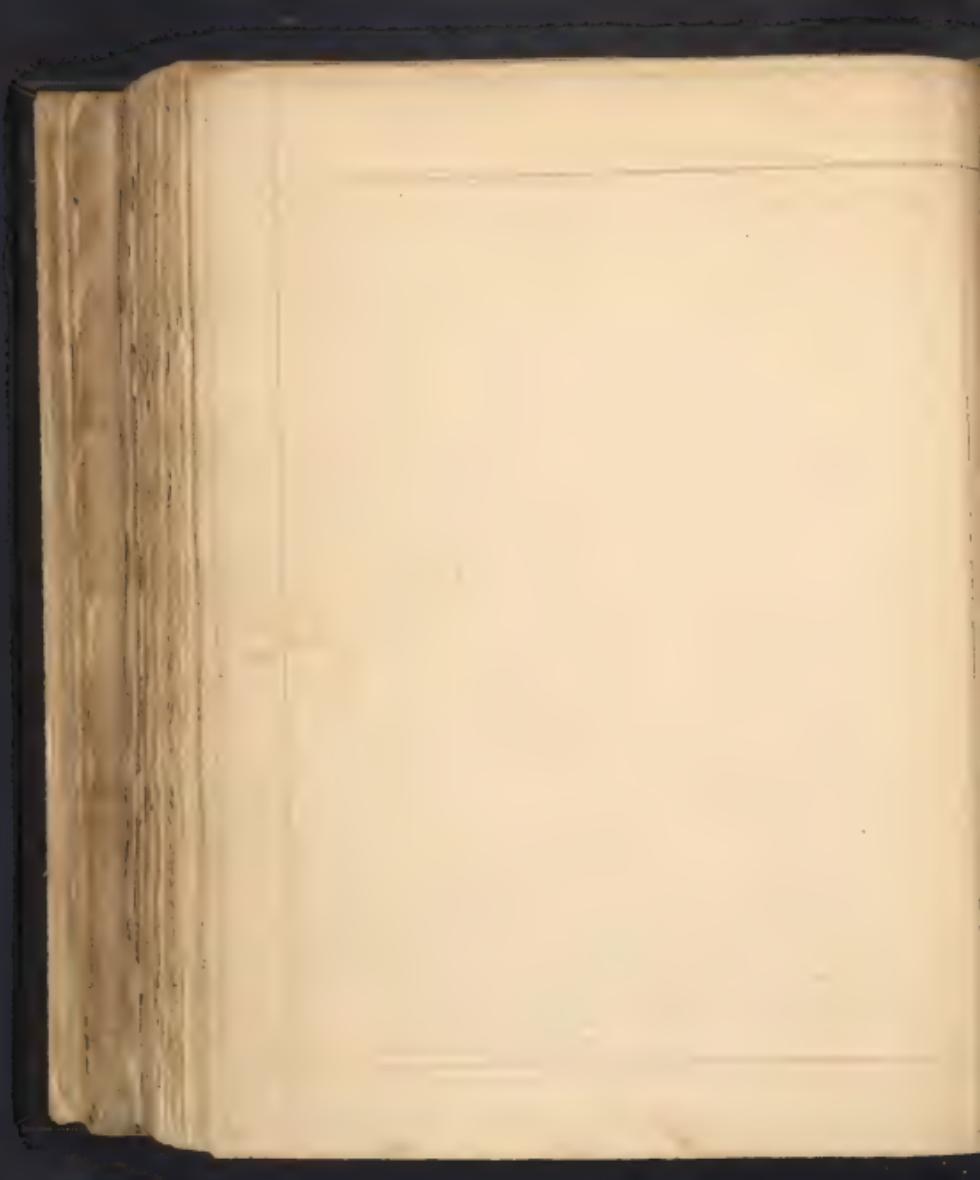


It is a settled point in the medical work -
that cold which has with most violent
violent, & sudden convulsions. It is natural
to him to do, according to the name
the star of iron, but it more sensibility
in a more late of Preparation.

In the same classes does the engine
what which is the most part commonest
sudden in the latter Part of May, &
is 'beginning of June', and 'continues in
the tenth days of June', destroying and
the stomach and Bowel, but the
heat - generally is generally brought in
by you things, & thus the disease of 'feel-
ing' is produced.

'In the month of June
and summer. The heat is more
intense the it grows towards, which
is phenomena vary more degree.
The reason is 'owing to the vapours

consid-



considerable time for the body, to commence
and it to run double course.

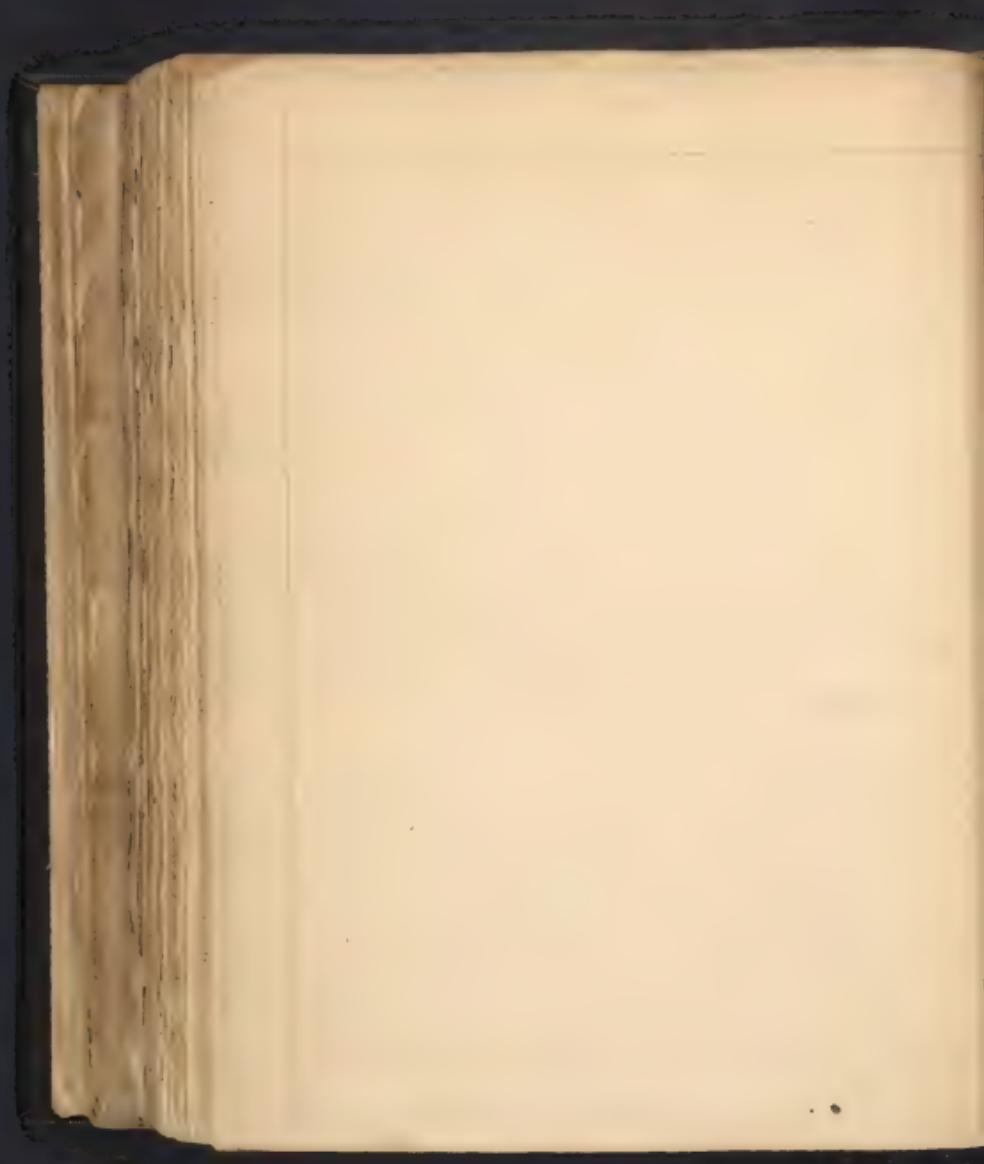
What, in this respect by sudden transi-
tions, how much more must widen be,
what present probability & tendency of the
climacteric period are to easily descend into
old age!

I wish Chapman, & have
a few hours serve me inventing it, as being
a disease almost if not entirely peculiar
to the United - States, the same idea
I have endeavoured to sketch, which may
be inserted in the foregoing remarks,

I think it would be a liberal
one, which would suit & harmonize
the other term regarding the condition
of man, or in other words.

Be the description of it to the like
of this* it can be added.

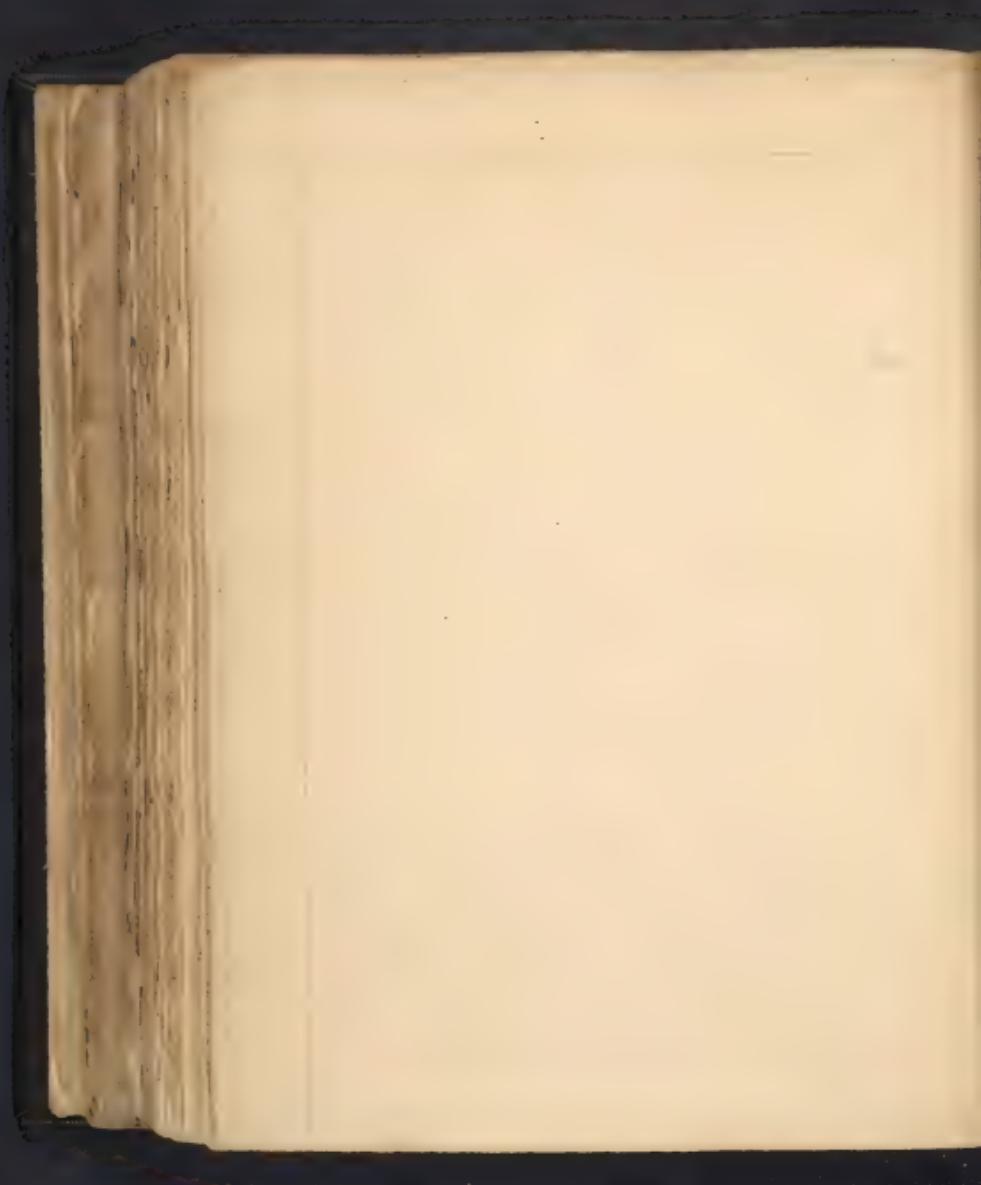
The



in summer he comes. But it is
very opposite in Preuday & the
weather is warm at the beginning of July.
(3d) it rain'd all day & the 4th.
& continue till near the middle of August.
It is pecuny & damage are obvious, according
to the rest of the weather.

24 Aug. Weather
from the first to second week was cold & dry
the air being very cold & something frosty
& I consider'd it was a time for a good many
dead or dead & half dead in hibernation. but it
was remarkable how in spite of a violent wind
& snow & a high wave

Action can be more lively
than the constance of the discharge, from the
body & the mind is much stirr'd up, &
I see others, but as well without
and without pain, but at other times

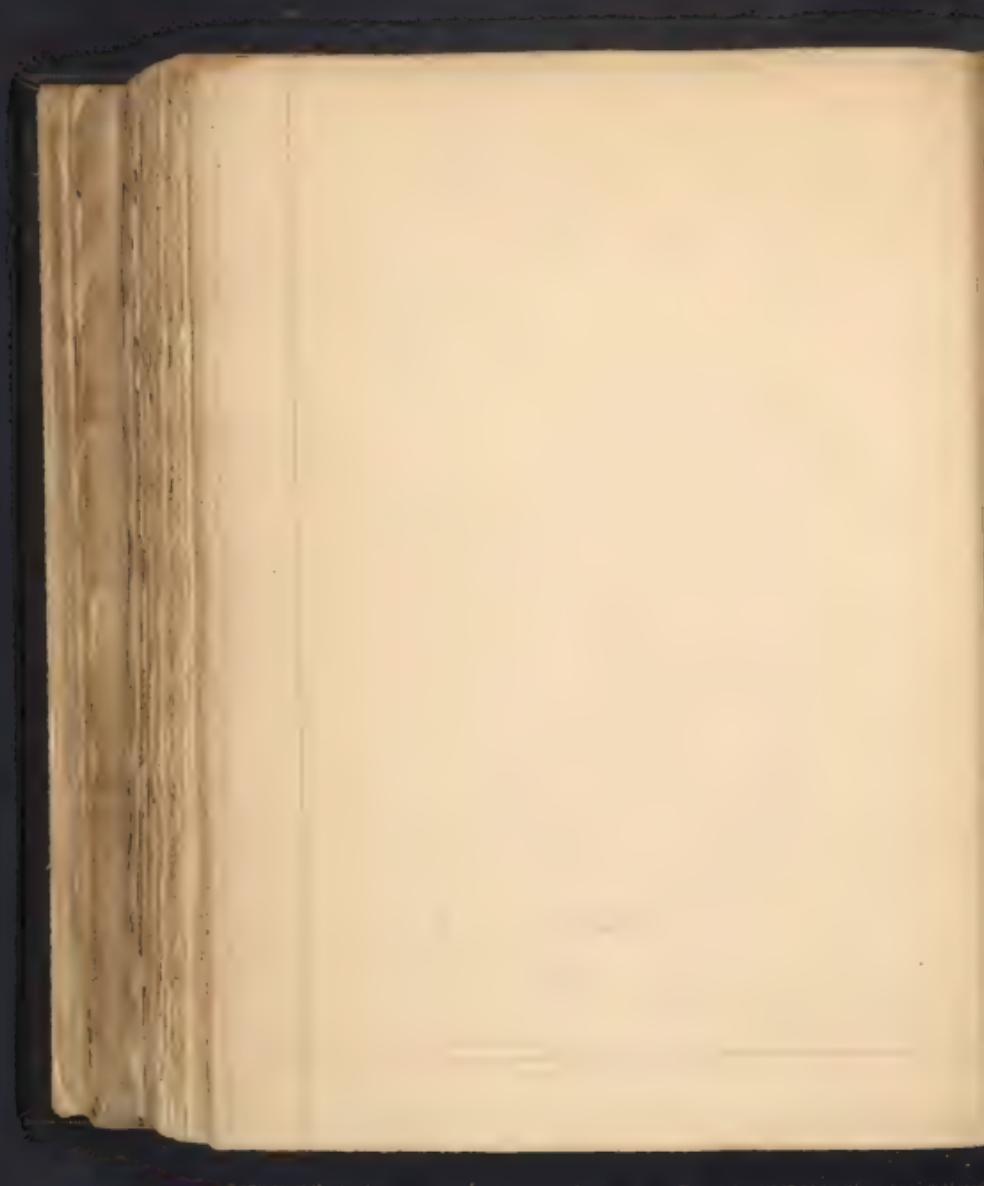


When the lungs are once inflated or over-inflated with air they are said to be over-inflated; if the air is retained, it is said to be retained; but when there is a rapid and regular respiration, the lungs are said to be quiet.

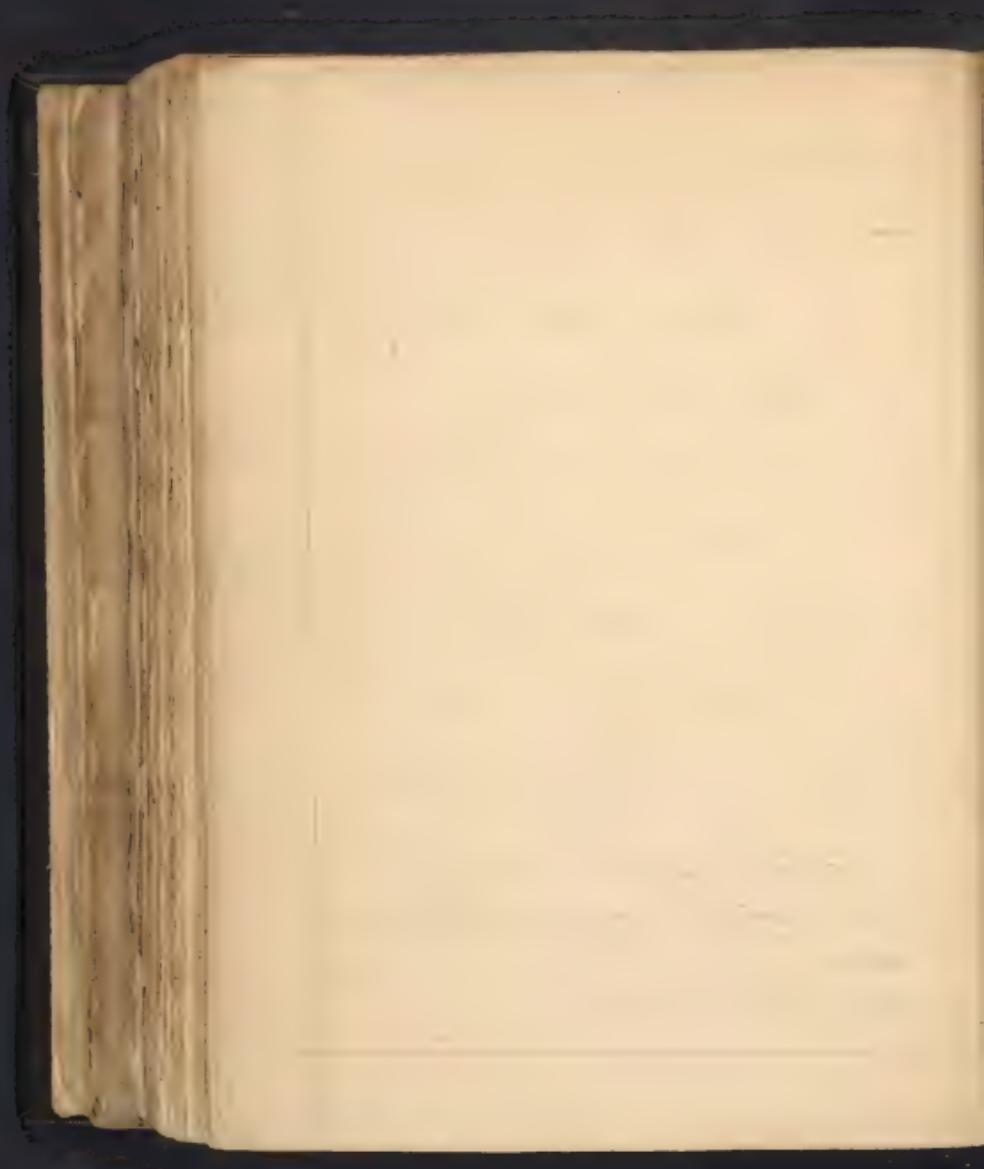
The fibers of the intestine may be subject to contraction & to relaxation, & so alter, according to circumstances, the pressure of the gas.

The intestinal walls will be covered by an intestinal mucous membrane, & the lining of the intestine will be a watery fluid, or a fatty, tenacious substance. It comes from an large vesicle long been done to. Name, membrane of the intestine or it becomes abraded & the stool will be tinged with blood, & there will be some of the blood when excreted in the stool.

But the most usual appearance of the stool is green, from the retention of air.



The disease as when we are going to see our world, appears to me to be as follows. The liver may be excited to excrete bile & thus any indisposition of the intestines & the bile then becomes a vehicle of irritation to the bowels, or of the bowels to excrements & the nibbler may wait till two to six hours to begin his meal. — — another way by which the bile may be rendered so copious is — vomiting. This may be far act on the Gall-bladder so to cause it to pour off suddenly into the intestines & sometimes into the stomach. In this excretion the common name — "green bile" — gives the indication of the colour as very green, the mucus discharge is also green, & in the liveliest state of excitement it will be brown. The bile runs from some of the tender vessels on the internal coats of the intestines, mixed with the bile & other secretions, with such an appearance of the evacuation.



It sometimes happens in cases of this kind that passing a tractate milk will be found flowing in the discharge from the breasts. & if the child receives milk & water to quench it the breast will be always wetting. The stools will be almost green, watery. & mix'd with mucus. Sometimes bloody and mixed with mucus, but more frequently pale fluid of an insipid taste & peculiar odour easily penetrating the tinctest parts of linen.

From the commencement the disease is attended by a high fever which the indistinctness mark? is generally allowed to be of the remittent kind. It pass a small, such as in a very frequent & in some cases to duration varies, and how so variable, as we see it, proceeds the period which it maintains this.

There is no considerable inequality of temperature, it is not unusual to find one part excessively warm, while some others & particularly the extremities are being, without, from



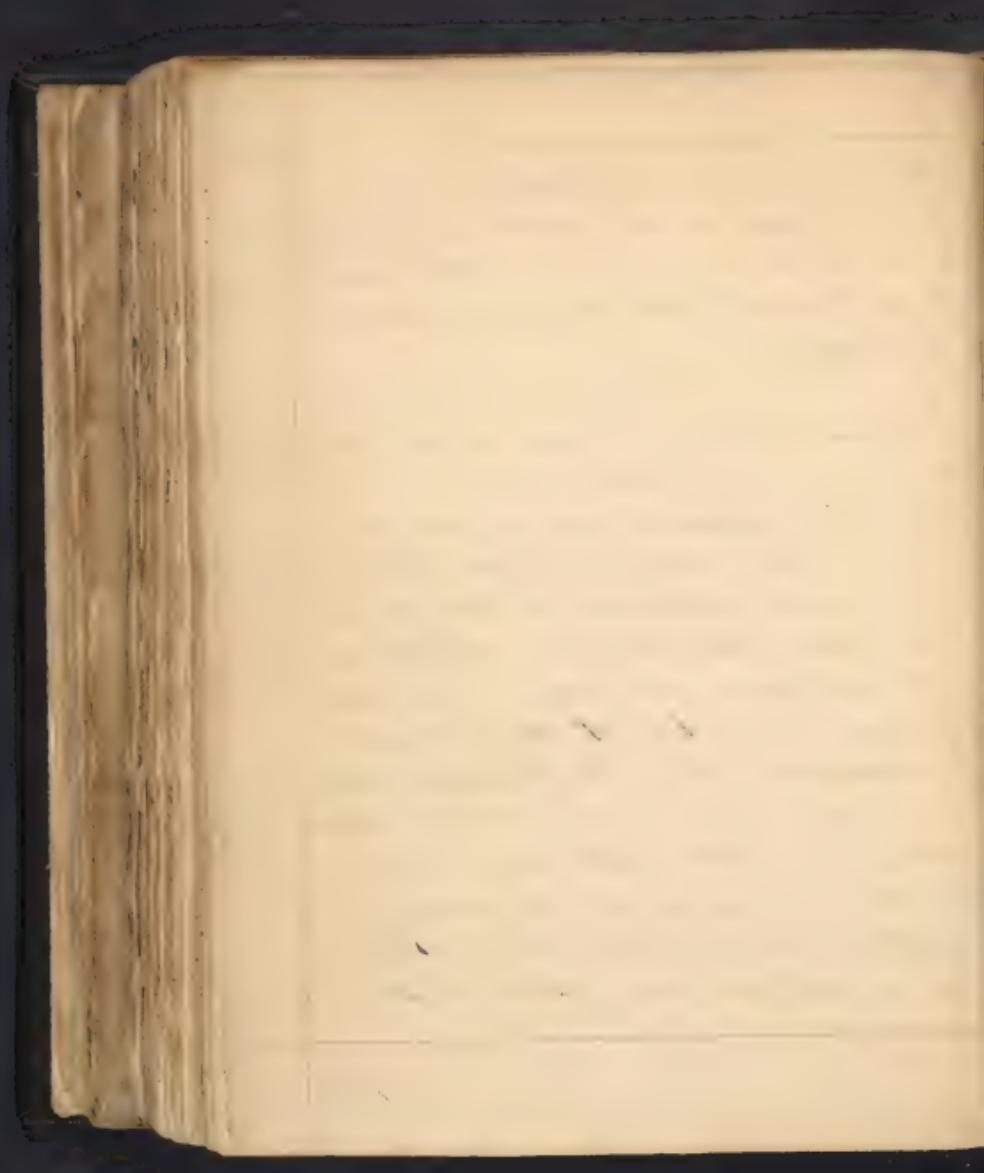
out of circulation or put into use.

Dr. Smith said in some instances' children have
been sent to school ignorant & hopeless with
nothing to do & little time, money, money to
be obtained

If a man is to go into
the service without his "and s" & if he has
been to visit the place commanding, in com-
munity free of temptation, where no form exists
to make returns of things to a great extent,
and especially taking wages, the skin hangs
on & his particularly so on the extremities.

In my opinion there I think a good deal
of money, & almost if not entirely insufficient.
In commanding vicinity the little sufficient steps
he can with ease in his liberality of course
extreme for a little, but don't want him
to wear 2/3. It's to allow a man to
deserting now to settle expenses, & take
now we set up cases of persons on board

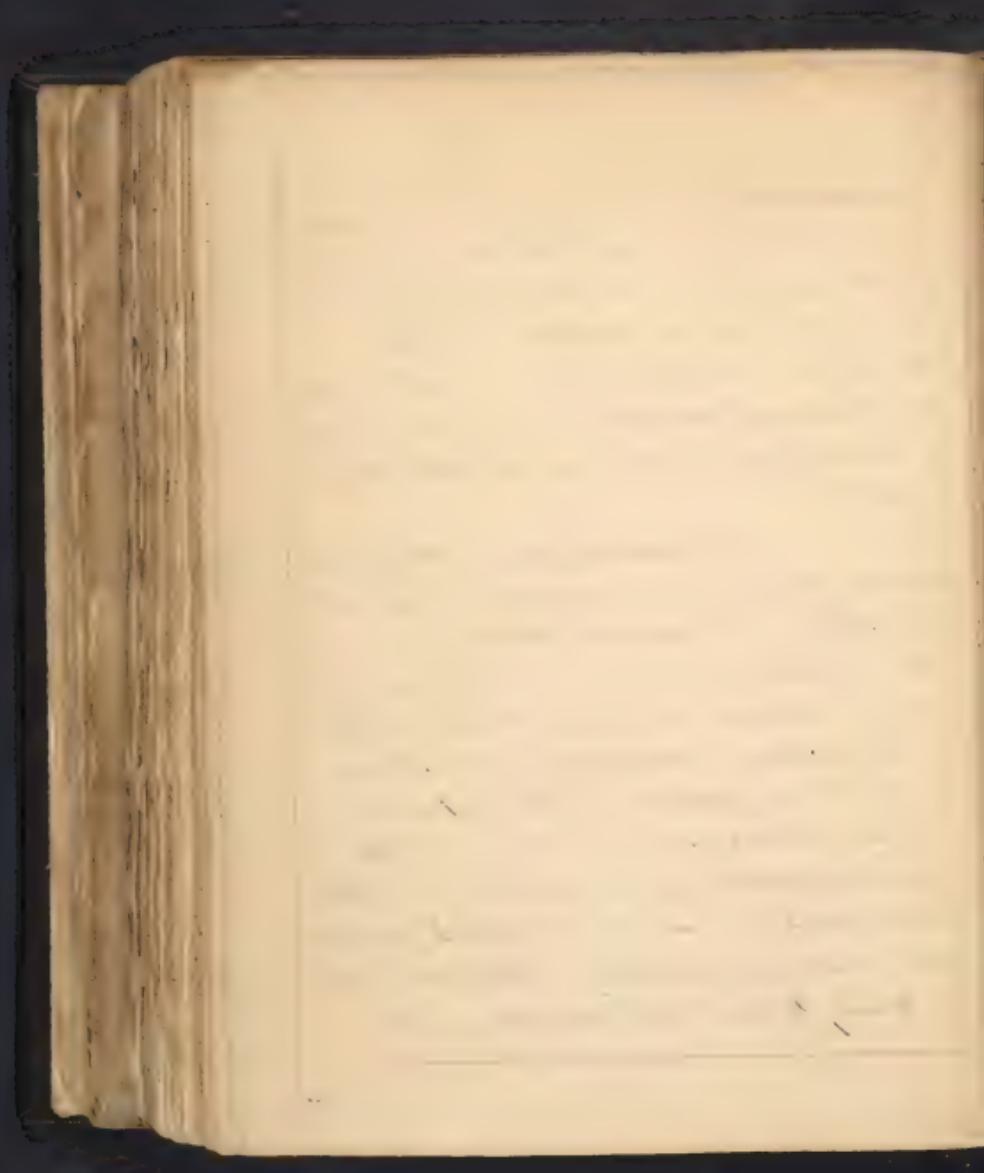
first



sentiment. Should you be here at the
end of May in the morning we shall be holding
a Court, over which Professor [unintelligible] is to
arrange the case of [unintelligible]; most likely a
decision will be given [unintelligible], however the
Court [unintelligible] or [unintelligible] or in whose broad
The bulk of human history has not pleased
to give.

5th, 1st symptom of the disease
according to the former distinction which calls
for relief is the passive vomiting.

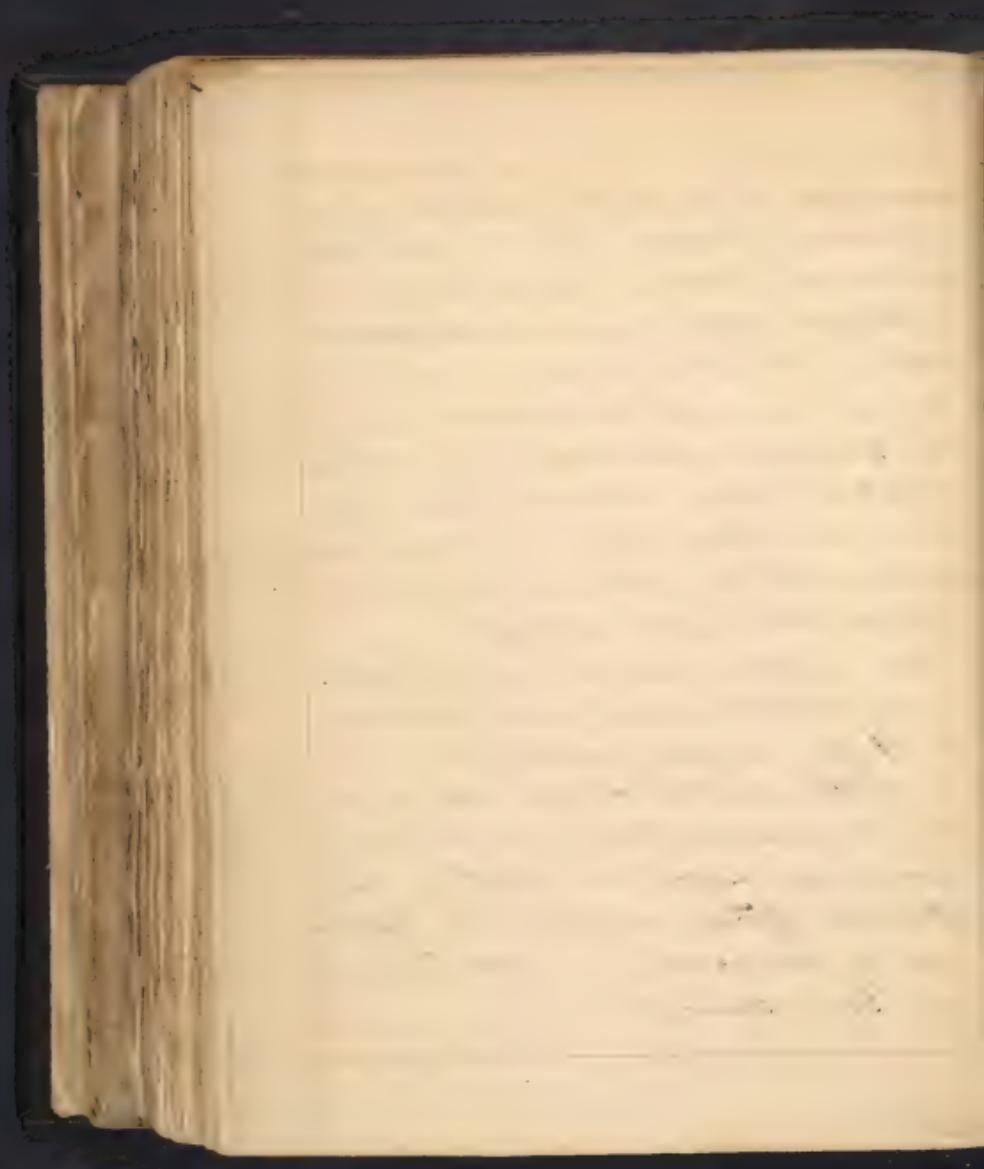
The stabulation of an enema is not the indica-
tion as thought by many, & I believe, justly,
to be dangerous, particularly if the disease
deserves to receive no violent action.
In all of these cases it is evident that the
operative matter has been excreted, or if the
attack has been so sudden & violent, as to pro-
duce considerable prostration of strength, with
a weak pulse & cold extremities. The



administration of an emetic, would be an
of injudicious practice. This to subdue the
heat, irritate & strain White Mucous, even
the Stimulating Coughing should be extremely
useless. The hot water bath is one of the most
powerful remedies for this symptom, especially
when rendered more stimulating by the addition
of salt & Mustard or Cayenne Pepper. If after
the warm bath I would order a mustard or emu-
nition to the Epigastrium, repeated every
30th hour, till it prove successful.

Even a solution of Camphor in Spirit Turpentine
or of Castor Oil, mixed with Turpentine,
might prove singularly successful. —

At the same time I would order one or
two tea spoonfuls of Soda & one drachm of
Laudanum; — or what would be
still more efficacious, one or two tea spoons-
full of lime water in a little Mixture
of Gum-Arabic.



Other & important matter has not been comprised
in our present condition. I would not
venture to give a wide use of Procreatin
unless the subtlety which should be attended to
in the administration of such Medicine —

The next attention is directed to the laws;
the latter which they contain, may serve as
valuable sources of regulation. It seems it can only
employ Calomel, Castor oil or Magnesia.

In mild cases one or two tea-spoonsful of
the Ultramarine mixture given occasionally will
answer; but every indication which a purga-
tive is desirable to meet, will be best effected
by Calomel. — And independent however
of its Procreative power it exercises a direct &
powerful influence over the hepatic system.

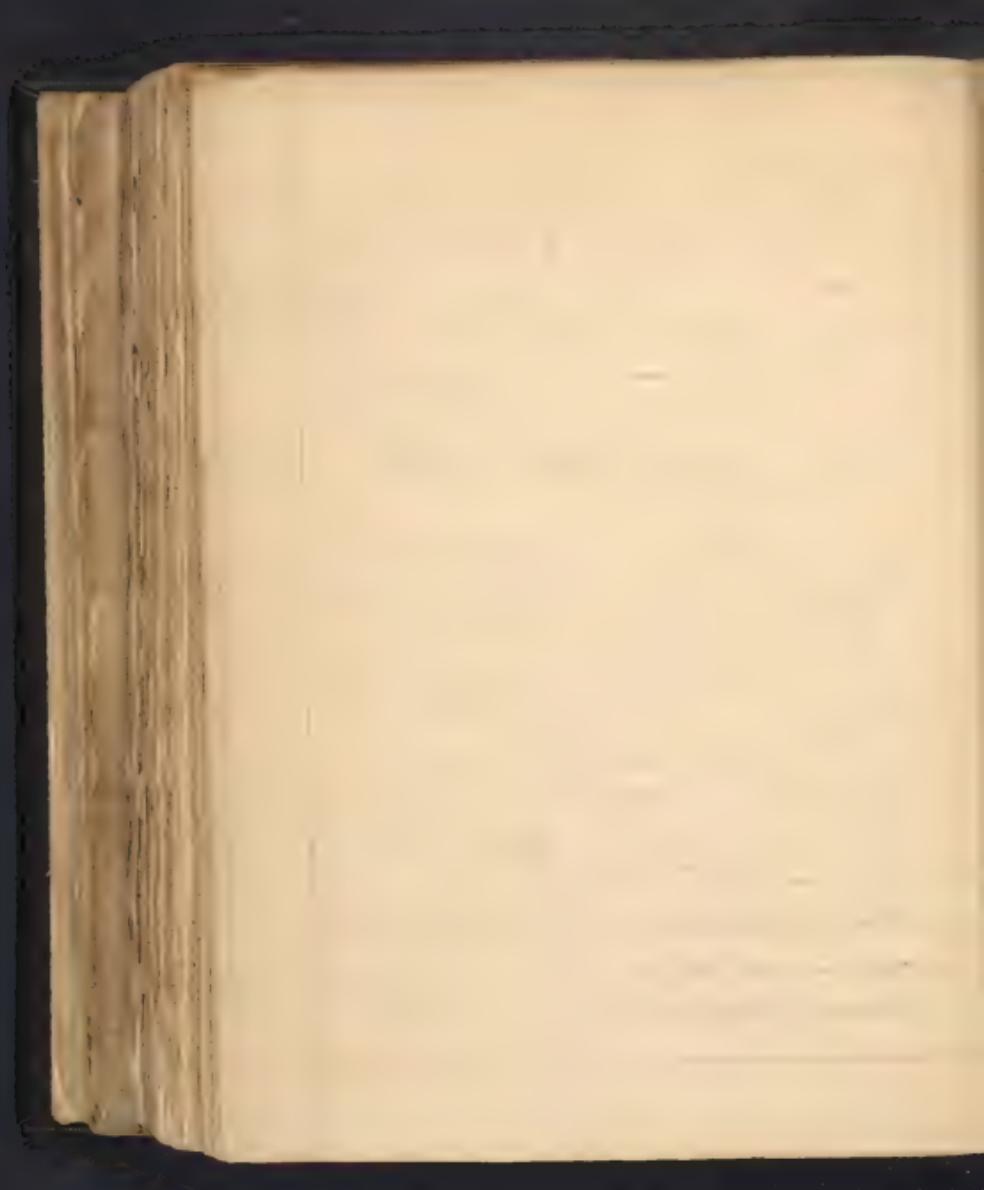
This valuable property of the Medicine should
be I believe generally does cause it to rank
highest in the estimation of the best prac-
titioners — The most eligible form of ad-



administering it, is in combination with Opium
& Siccac. It is a salve from 6 to 8 lbs to 1 Year
that the Doctor give a poultice composed of siccac
& Cal... &c Siccac. & 1lb or 2lb Opium every
two or three hours. — as the Stomach may
be given in minute doses, a green rubber apule will be
left in it, & is generally administered every 2 hours
till the stools become natural.

Sixth we have proceeded therfor
in allaying the irritability of the Stomach and
giving one or two purges to clear the bowels
2 drams each time the extractive juice of the
Pipeworterist. a tea spoonful or two at a
time, with one or two drops of laudanum
according to the age & strength of the patient.
will sometimes succeed in stopping the remaining
Diarrhoea — But nothing from they nor from
any other medicine are we to look for success
except. — at the same time we are giving
the previously mentioned Medicines, we may

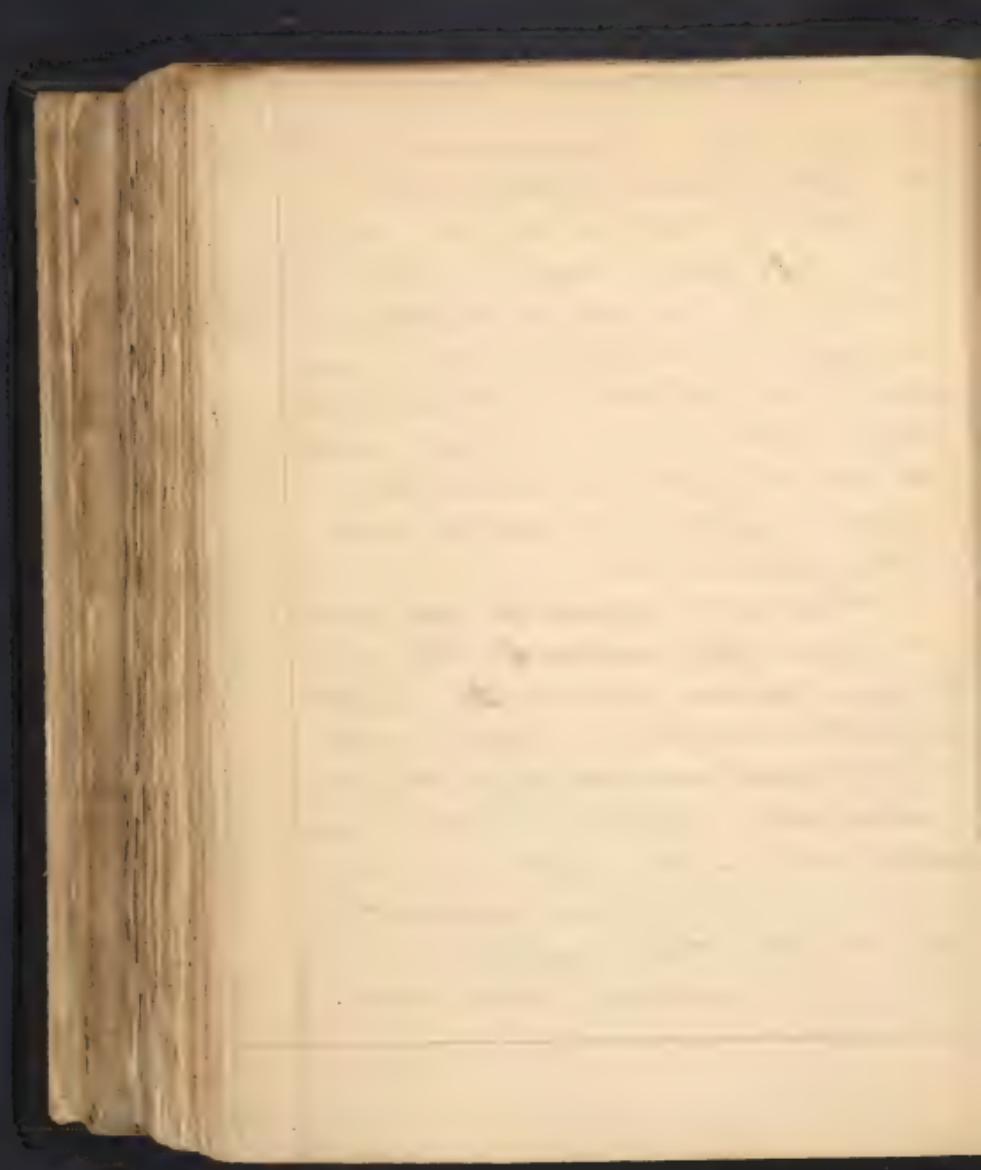
join



give injections of starch, flaxseed tea, Gum-water
or any other demulcent, or we may give some of
the astringent injection, decoction of Galls, Oak
bark &c &c - One thing worth attending on
giving injections is - to administer them in small
quantities - they will thus have the desired effect
whereas if they be given in large quantities
as the generatrices of Menses are in the habit of
(with previously told) they will be ejected
almost as soon as given.

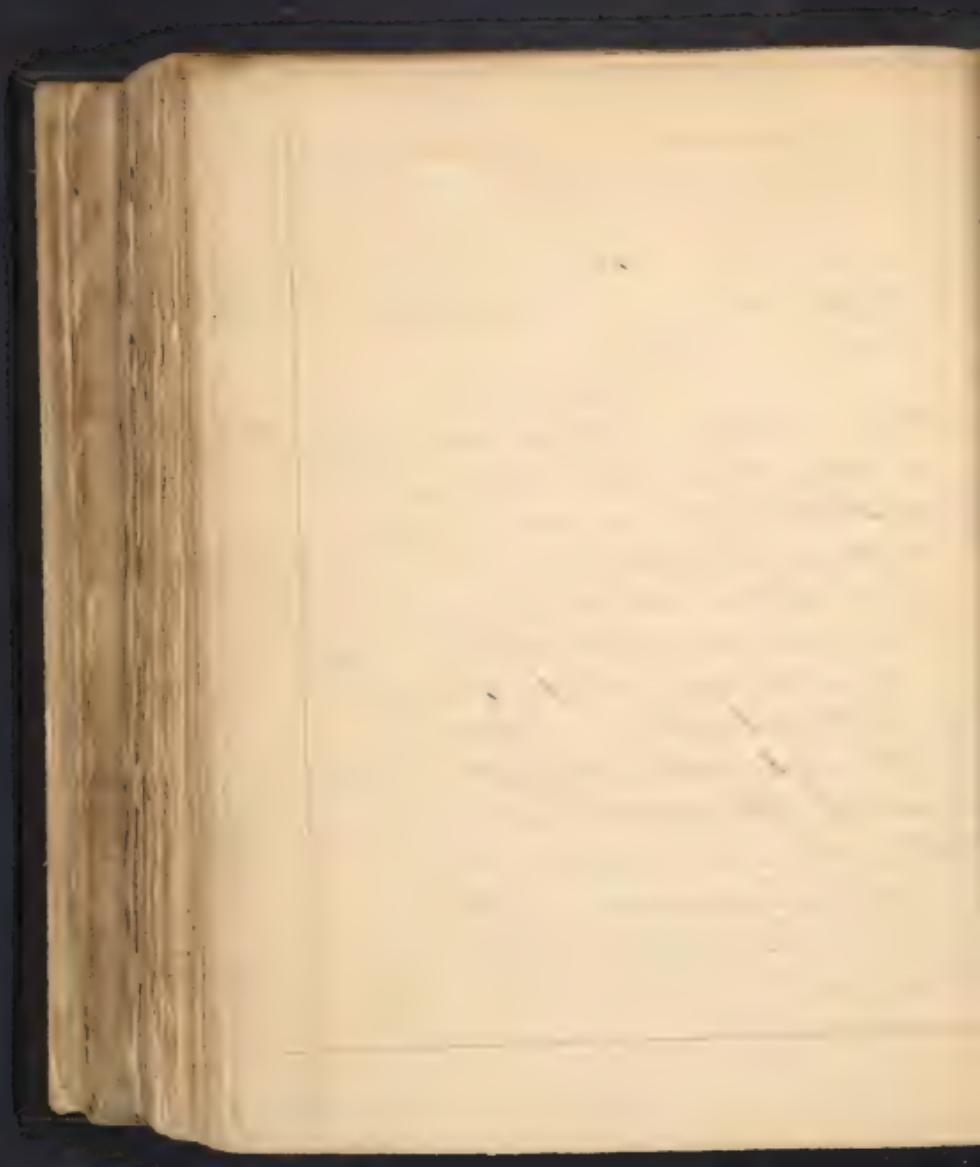
It is natural to suppose the little patient
woud require some nutriment - For, after
the disease has been of some continuance, the
child will be reduced to a state of great
debility. & much emaciated, before this stage
or even as soon as the bowels have been eva-
cuated & the irritability of the stomach calm;
we shoud begin to give some nourishment.
& do not know that any thing will ans.
better than Gum-Arabic, Water, & such

pleas-



Mix'd out by the addition of some aromatic
as a little cinnamon, &c, & nutmeg. This
preparation as far as I have seen it, has a
greater effect than we could anticipate from
it reasoning (^{a priori})

I have heard indeed
that some practitioners treat the disease at present
in a diet of Gum Arabic, confining the
Patient wholly to it, so much so, as frequent-
ly to render the discharge from Mucilag;
If the child be not yet weaned & still
able to suck, we will & not be very anxious
to give it much aliment. The Mother's
milk is the most nutritive & at the same
time the most natural support. - But
in case the little patient mouth become
otherwise, the Gum Mucilage will become
an article of indispensable utility -
While I have seen the Currants so well used
I shall give it the Pigment, - It however



apples on the tree. I trust we are treating
that the extremities have got the best share
of a common Proportion, since the warm
water should be directed; - The Thermometer
which it is necessary we suppose is not
to remain one degree ex, ceedingly.

'Insipid' may also convenient enough be applied
to the extremities.

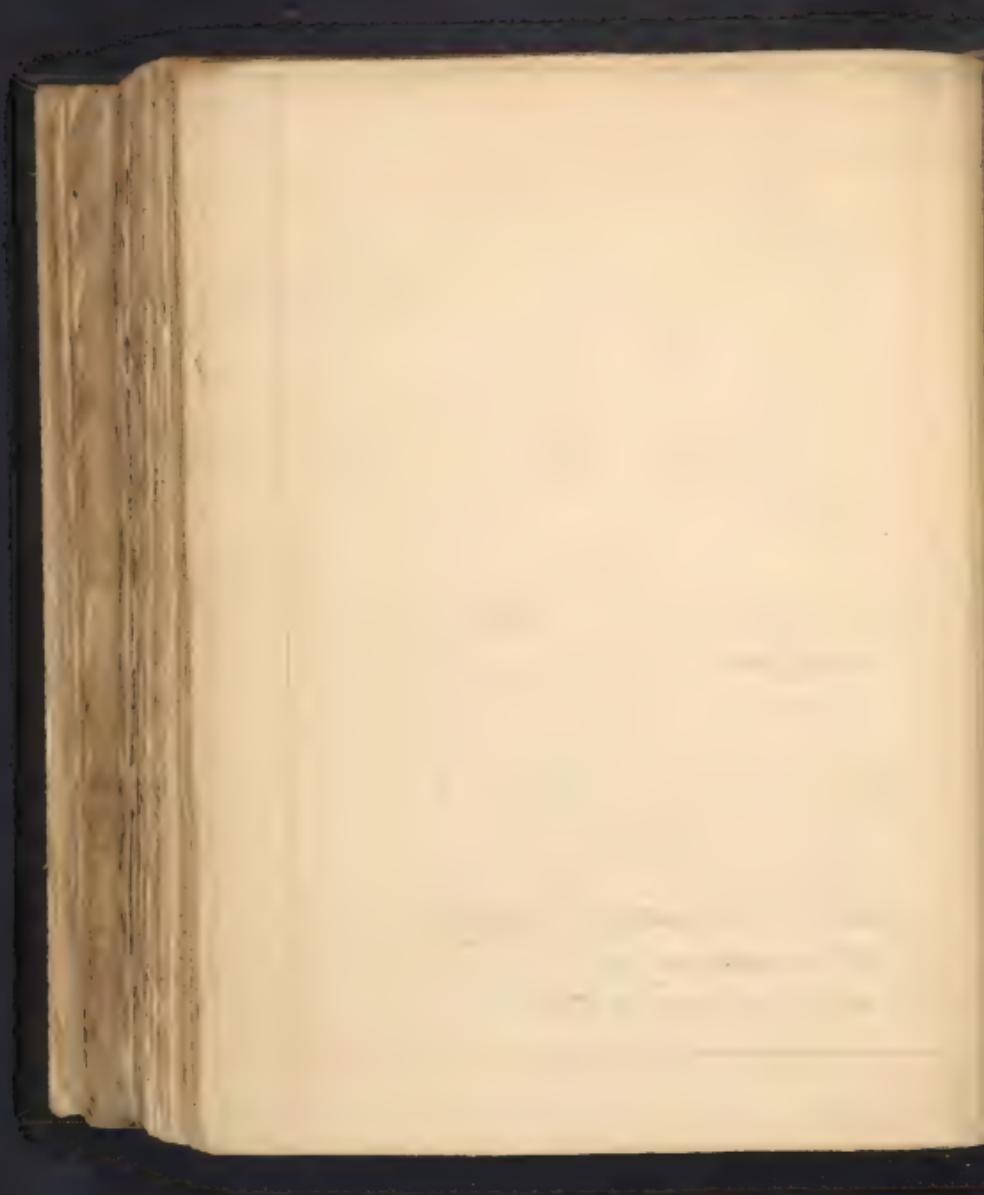
3 July Summer (1822) I
had an opportunity of testing a part of
the plan of treatment which I have been un-
doubtedly laying down. — Calling about
the middle of July to see a former Acquain-
tance - a respectable lady - whose present
distressed situation, is rendered even more
designant by "The remembrance of better days."
I observed her youngest child about
the monthly age, sick & gauntly. I enquired
the cause, - Upon the manner in which
she described the previous state of the



suffer, I knew it was in the last stage of
Cholera Profounda - Dr. Pinckney being
in attendance, I directed the Mother to
use the Warm bath. I let give the little
Patient, too a thin Gruel occasionally,
& a mixture of Rau, Water & Scent, gruel
down on Boiled New-Milk, - She was
also directed to administer a few injections
of Starch - -

Moving, Pro-ceeding her
some port wine, she gave it in small num-
ber doses with a tea-spoonful or two of
the decoction of Logwood. & honest as
are the remedies employ'd I had the
satisfaction to find that in 3 day the
child was convalescent.

The warm bath having equalized the
temperature & the internal application together
with the injections stopped the frequency of the
stools which on my first seeing the child were

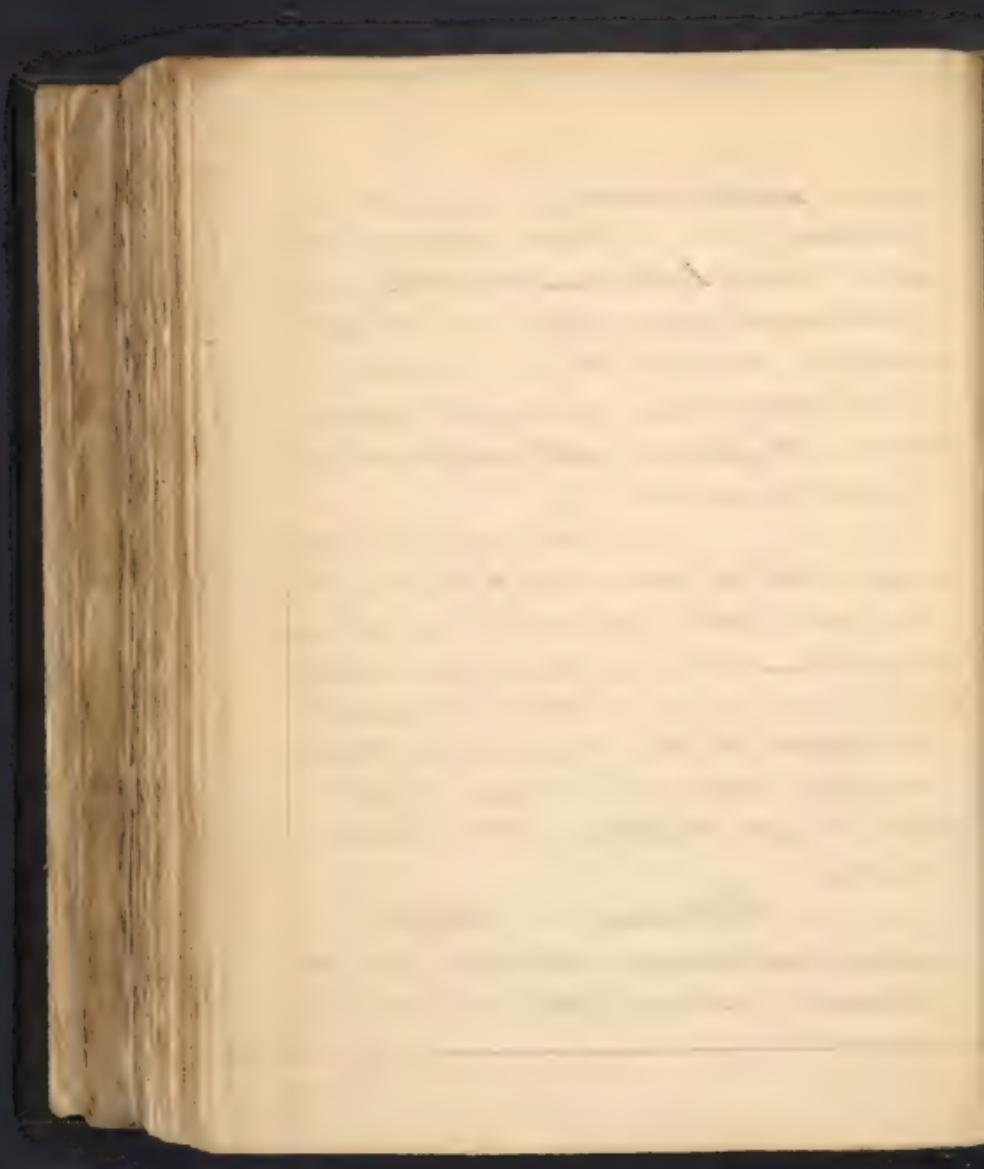


green, & waters & voidio in a state of
prosperity ~ In next orders the cold
bath & Kernel Pollen round the child's abdomen.
By this simple means, together with the best
plaster being applied two or four times - I
had the extreme pleasure of seeing it completely
healed in the space of eight days from the time
of my first seeing it.

I would however attempt
to say, that the plan which I pursued in this
& one or two other cases would prove universally
successful. - For, as diseases are constantly
varying, from change of season, peculiarity
of Constitution & other circumstances, the rem-
edies applies must in like manner, vary to
meet the diff^d symptoms as they present
themselves.

If the disease be obstinate in
yielding, to the remedies which have been re-
commended. I would not abandon the

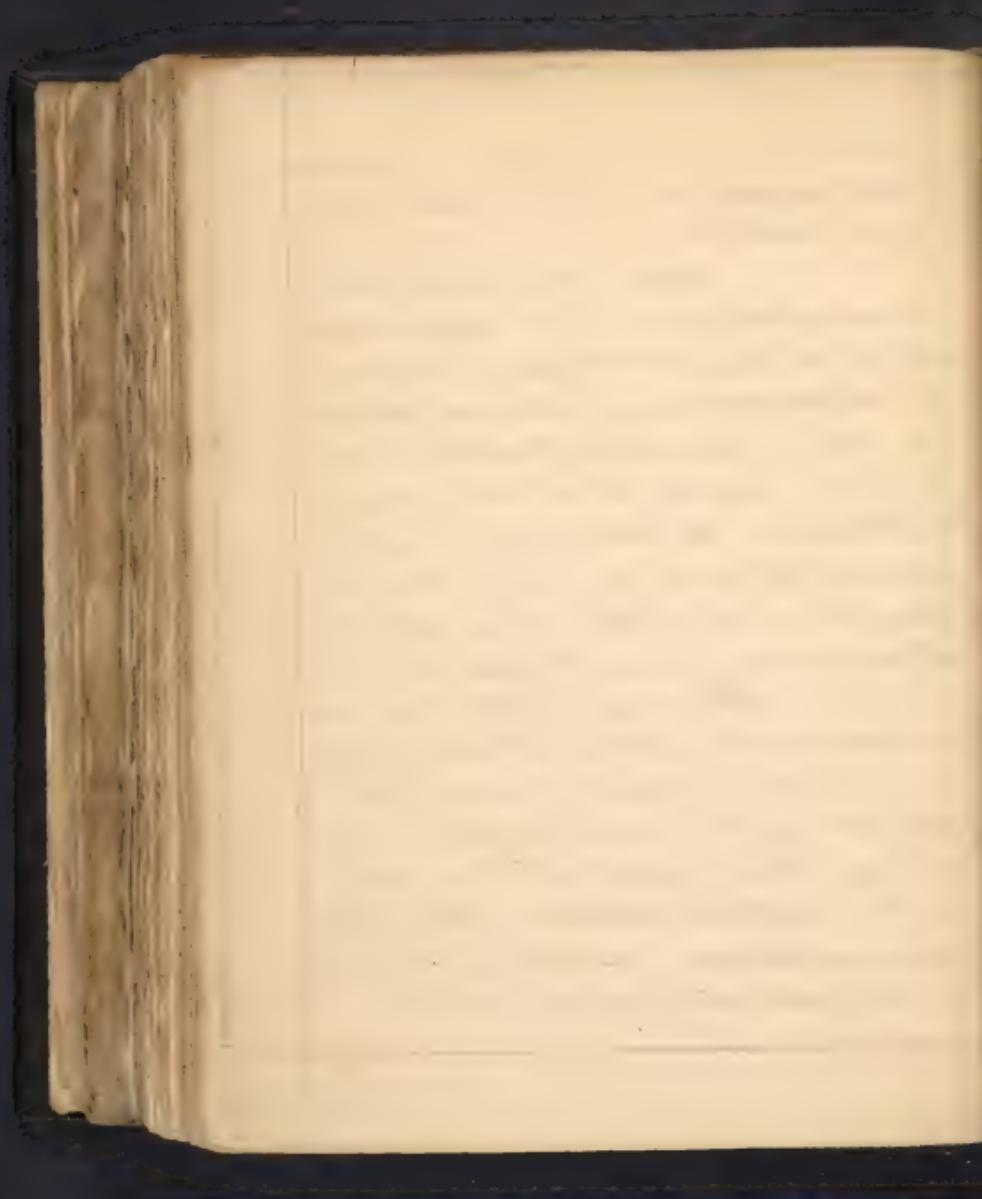
Patient,



Patient as there are numerous others which
may be resorted to.

We have before us the whole
catalogue of Astringents in the Malica Medicina
both from the Mineral & Vegetable Kingdom;
From the Vegetable however there are not more
than three or four which I would use, viz
the Gall, Logwood, Elm, & a species of
the Blackberry, the latter for every laxative
state of the bowels was a favorite remedy
among the guards & nurses of my native country
but was strenuously decried & exposed by the re-
putable Drs Physicians, from the very inde-
criminate manner in which it was employ-

and I am disposed to believe that
astringents are now rarely employed, to the
extinction of time remedies which are calculated
to correct the violent secretions of the
abdominal viscera: — I have seen patients
in the latter stage speedily recover,



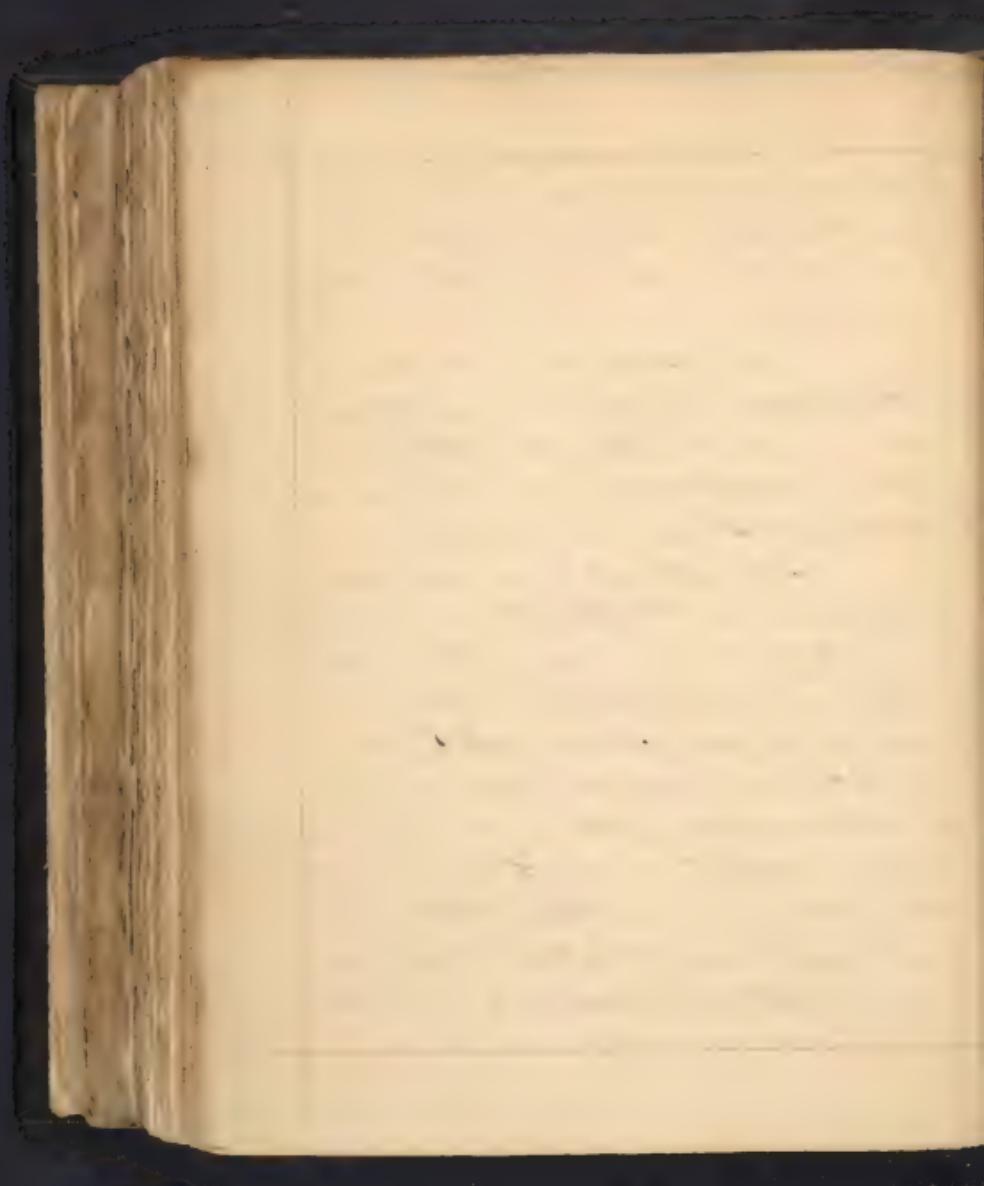
by the use of very small doses of Opium does
presently operate. which in doubt will
as an' alternative give the opiate & other
medicines. —

Great big slugs the decoction
of *Hematoxylin Compact.* in a little port
wine, or a little spiced Whine
might be advantageously given, or some weak
brandy toddy sometimes proves serviceable.

As mentioned — we may trust a
little jolly for the little patient. for it may
need a preparation of size — Brown Ale.

2 pieces mace palatable by the addition
of some spirit. The Brown Ale & spirit.

What I have known to answer uncommon-
ly well in many cases is the liquor of
Clary or Clusters. we might infer from the
good effects of it in activity. that it would
be serviceable here. On trial it has been
found to justify the conclusion, by imparting

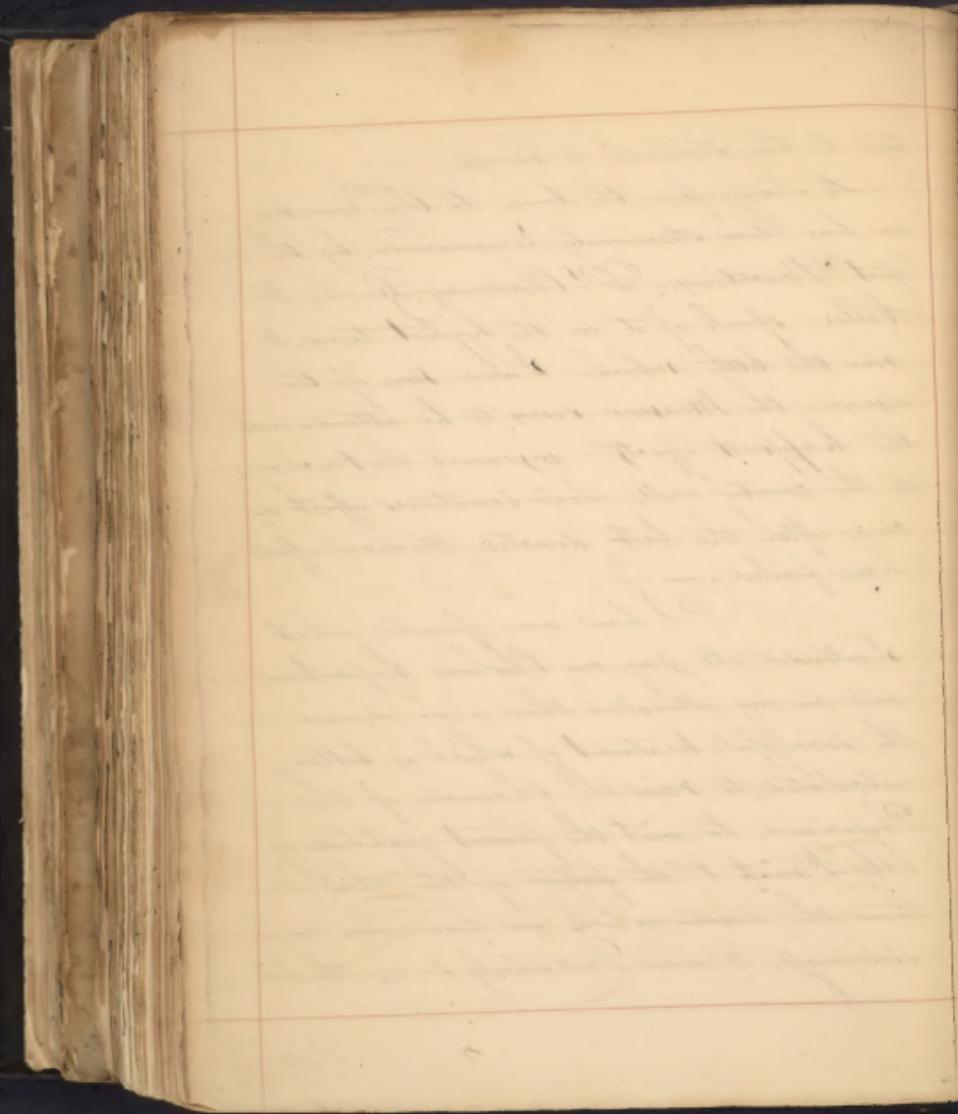


tone to the stomach & bowels.

A change from the town, to the country air has been strenuously recommended by the first Practitioners. - Dr. Chapman, Rush, & Miller, speak of it in the highest terms, & from the little which I have seen of the disease, the measure seems to be attended with the happiest effects, insomuch that a change to the country will alone sometimes effect a cure after the best directed Medical efforts have failed. -

I have now finished what I intended to say on Cholera Infantum; and in my estimation there is no disease, the successful treatment of which is better calculated to raise the character of the Physician, to meet the present gratitudes of the Parents & the future of the child, than the disease which we have been considering, & more particularly so, as the bill

Patients



35

Patients are generally brought to the lowest state
The Physician perhaps in the winter of life
when his head shall be gibbous over with age
and the labours of his Profession, shall hear
this pleasing Salutation from his former
juvenile Patient, now developed into
Manhood & in the busy scenes of the world.

"This is the Doctor to whom I am
Particularly indebted for my life, whose
abiduity & attention snatched me from a
Premature grave." Such an ejaculation
from an individual of Ment. would
more than compensate the thousand acts
of ingratitude, which Physicians
are "fata;" but too liable to meet
with in their Progress thro' life. —



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